APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/768,117	01/23/2001	John C. Adler	M-8164 US	3321

33031	7590	01/12/2005	EXAMINER

CAMPBELL STEPHENSON ASCOLESE, LLP
4807 SPICEWOOD SPRINGS RD.
BLDG. 4, SUITE 201
AUSTIN, TX 78759

	EXAMINER
	TON, ANTHONY T

ART UNIT	PAPER NUMBER
2661	

DATE MAILED: 01/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	09/768,117	ADLER, JOHN C.
	Examiner	Art Unit
	Anthony T Ton	2661

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>26 July 2004</u>.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-54</u> is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-54</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>23 January 2001</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All   b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

PHIRIN SAM
PRIMARY EXAMINER

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____ .

DETAILED ACTION

Claim Rejections - 35 USC § 102

1.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2.   **Claims 1, 2, 4-7, 11, 15, 16, 18-21, 25, 29-31, 33-36, 40, 44, 45, 47-49** and **51** are

rejected under 35 U.S.C. 102(e) as being anticipated by *Oliva et al.* (US Patent No. **6,654,802**)

hereinafter referred to as *Oliva*.

a) **In Regarding to Claim 15**: *Oliva* disclosed an apparatus disposed in a

communication system, the apparatus comprising:

means for transmitting data in a transport overhead field to at least one network element

(see Fig.11: ports 52 and 58, register 72, and link 100 (means for transmitting data), blocks 42

and 44 (network elements); see col.5 lines 33-39: the network element and port identifiers are

obtained from the memory resources of network elements 22 or 24 and are inserted into the

overhead of one or more frames of data; and see col.9 lines 56-65: for transmission as section

trace bytes (transport overhead field)), the data providing a source identifier and a destination

identifier *(see col.10 lines 18-27: The information (data) is used to determined associations*

between networks elements 42 and 44. Registers 72 associated with connected ports 52 and 58

includes source identifiers 64, 66, and 68, 70, respectively and destination identifiers 68, 70, and

64, 66, respectively); and

means for using the data in the transport overhead field to provide end-to-end services

(see Fig.11: block 46 (means for using the data); see Fig.10: block 86 Path Overhead (this can

be used for end-to-end services); and see col.7 line 66-col.8 line27: the network element and

port identifiers are transmitted from source node to the destination node using SONET section

trace bytes (hence end-to-end services)).

b) **In Regarding to Claim 16**: *Oliva* further disclosed the transport overhead field is a J1

field in a SONET communication packet *(see col.9 lines 18-55: The path trace byte J1 is defined*

from ANSI T1.105; and see Fig.10: block Trace J1).

c) **In Regarding to Claim 18**: *Oliva* further disclosed means for applying a routing

protocol to read the source identifier and the destination identifier *(see Fig.11: blocks 46 and 48;*

and see col.6 lines 51-63: Management system 46 either obtains or reads network element

identifier 66 and 70 from network elements 42 and 44, respectively).

d) **In Regarding to Claim 19**: *Oliva* further disclosed end-to-end services includes one

or more routing, provisioning, and restoration of functions *(see col.2 lines 21-29:*

telecommunication network functions, circuit provisioning, and restoration of failed

connections; and see col.3 lines 16-23: each port in a network has local knowledge of the

identity of the corresponding port and network element at the far end of the physical link (hence

routing function for end-to-end services))

e) **In Regarding to Claim 20**: *Oliva* further disclosed end-to-end services are path level

services of a SONET communication network *(see Fig.11: block NE-NE Connection Fiber or*

WDM (SONET)).

f) **In Regarding to Claim 21**: *Oliva* further disclosed the apparatus includes a

communication circuit disposed in one of a SONET and SDH *(see Fig.11: block 42 or block 44*

(a communication circuit); and see col.9 lines 56-65: SONET).

g) **In Regarding to Claim 25**: *Oliva* further disclosed the data providing the source

identifier and the destination identifier avoids manual point-to-point routing of STS-Ns *(see col.2*

lines 37-38: Automatic discovery of the network topology without entry (avoids manual) of the

topology may be provided; and see col.3 lines 1-4: automatic discovery of network topology

(hence avoids manual); and see col.10 lines 18-36: source identification, destination

identification, and auto-discovery process through correlation of identifiers; and see Fig.8: STS-

Nc).

h) **In Regarding to Claims 1, 2, 4-7 and 11**: These claims are rejected for the same

reasons as Claims 15, 16, 18-21 and 25, respectively because the apparatus in Claims 15, 16, 18-

21 and 25 can be used to practice the method steps of Claims 1, 2, 4-7 and 11, respectively.

i) **In Regarding to Claim 29**: *Oliva* disclosed a method for data communications

systems as recited in Claim 1. This method can be applied to reject this claim for the same

reasons as claim 1 because it is well known in the art that method steps can be programmed to

automate a process. The computer product program is considered as firmware that the apparatus

uses to perform the method steps.

j) **In Regarding to Claims 44, 45, 47-49 and 51**: These claims are rejected for the same

reasons as Claims 15, 16, 18-20 and 25, respectively because the apparatus for transmitting data

as recited in Claims 15, 16, 18-20 and 25 is the reverse apparatus for receiving data as recited in

Claims 44, 45, 47-49 and 51, respectively.

k) In Regarding to Claims 30, 31, 33-36 and 40: These claims are rejected for the same

reasons as Claims 1, 2, 4-7 and 11, respectively because the method for transmitting data as

recited in Claims 1, 2, 4-7 and 11 is the reverse method for receiving data as recited in Claims

30, 31, 33-36 and 40, respectively.

Claim Rejections - 35 USC § 103

3.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

4.   **Claims 3, 10, 17, 24, 32, 39, 46** and **50** are rejected under 35 U.S.C. 103(a) as being

unpatentable over *Oliva et al.* (US Patent No. **6,654,802**), in view of *Hosler et al.* (US Patent

Application Publication No. **2002/0009048**) hereinafter referred to as *Hosler*.

a) **In Regarding to Claim 17**: *Oliva* disclosed all aspects of this claim as set forth in

claims 15 and 16.

Oliva failed to explicitly disclose a J1 field includes the source identifier and the

destination identifier.

Hosler disclosed such a J1 includes the source identifier and the destination identifier

(see sections [0042] in page 5: Using the J1 bytes, a local path terminating equipment "PTE"

injects identifying signature data, such as bit string, into a frame for transmission, wherein the

bit string identifies the transmitting router (hence source identifier) and PTE (hence destination

identifier))

At the time of the invention, it would be obvious to a person of ordinary skill in the art to combine such a J1 includes the source identifier and the destination identifier, as taught by *Hosler* with *Oliva* in order to provide end-to-end services in a communications network. The motivation for doing so would have been to provide other path overhead fields are capable of carrying identifying signatures in a SONET system *(see Hosler: Para [0042] on page 5)*. Therefore, it would have been obvious to combine *Hosler* with *Oliva* in the invention as specified in the claim.

b) **In Regarding to Claim 24**: *Oliva* disclosed all aspects of this claim as set forth in claim 15.

Oliva failed to explicitly disclose the data further includes one or more of transport identification data, Internet Protocol addresses, Common Language Location Information data, and request for bandwidth.

Hosler disclosed such an Internet Protocol addresses *(see sections [0030] and [0036] in pages 3 and 4, respectively: (IP) maintains one or more routing tables. The routing tables associate with outgoing interfaces with destination addresses, the SONET/SDH system shown in Fig.1 is a network following an Internet Protocol)*.

At the time of the invention, it would be obvious to a person of ordinary skill in the art to combine such an Internet Protocol addresses, as taught by *Hosler* with *Oliva* in order to exchange packets between two peer entities via a computer network. The motivation for doing so would have been to provide a higher-level routing protocol *(see Hosler: Para [0036] on page 3)*. Therefore, it would have been obvious to combine *Hosler* with *Oliva* in the invention as specified in the claim.

c) **In Regarding to Claims 3** and **10**: These claims are rejected for the same reasons as

Claims 17 and 24, respectively because the apparatus in Claims 17 and 24 can be used to practice

the method steps of Claims 3 and 10, respectively.

d) **In Regarding to Claims 46** and **50**: These claims are rejected for the same reasons as

Claims 17 and 24, respectively because the apparatus for transmitting data as recited in Claims

17 and 24 is the reverse apparatus for receiving data as recited in Claims 46 and 50, respectively.

e) **In Regarding to Claims 32** and **39**: These claims are rejected for the same reasons as

Claims 46 and 50, respectively because the apparatus in Claims 46 and 50 can be used to practice

the method steps of Claims 32 and 39, respectively.

5.   **Claims 8, 9, 12-14, 22, 23, 26-28, 37, 38, 41-43** and **52-54** are rejected under 35 U.S.C.

103(a) as being unpatentable over *Oliva et al.* (US Patent No. **6,654,802**) in view of *Martin et al.*

(US Patent No. **5,841,760**) hereinafter referred to as *Martin*.

a) **In Regarding to Claim 22**: *Oliva* disclosed all aspects of this claim as set forth in

claims 15 and 21.

Oliva failed to explicitly disclose the communication circuit is implemented as a line

card.

Martin disclosed such a line card *(see Fig 6: block 40 or block 50; and see col.4 line 50-

col.5 line19: The line layer, the line overhead (LOH); which is used to monitor a line card)*.

At the time of the invention, it would be obvious to a person of ordinary skill in the art to

combine such a line card, as taught by *Martin* with *Oliva* in order to provide line-to-line

communication in a SONET network. The motivation for doing so would have been to provide

synchronization and multiplexing for a path layer *(see Martin: col.4 line 50-53)*. Therefore, it

would have been obvious to combine *Martin* with *Oliva* in the invention as specified in the

claim.

b) **In Regarding to Claim 23**: *Oliva* disclosed all aspects of this claim as set forth in

claims 15 and 21.

Oliva failed to explicitly disclose the communication circuit is a processor

Martin disclosed such a processor *(see Fig.6: blocks of processor)*.

At the time of the invention, it would be obvious to a person of ordinary skill in the art to

combine such a processor, as taught by *Martin* with *Oliva,* so that communications data can be

utilized properly. The motivation for doing so would have been to control operations in a

SONET system. Therefore, it would have been obvious to combine *Martin* with *Oliva* in the

invention as specified in the claim.

c) **In Regarding to Claim 26**: *Oliva* disclosed all aspects of this claim as set forth in

claim 15.

Oliva failed to explicitly disclose the apparatus further comprising: means for applying a

wavelength routing protocol to the data in the transport overhead field to provide end-to-end

services, the wavelength protocol locating new paths for communication.

Martin disclosed such means for applying a wavelength routing protocol to the data in the

transport overhead field to provide end-to-end services, the wavelength protocol locating new

paths for communication *(see Fig.3A: blocks 2, 4, 6 and 8 "Tr. Node" and blocks 43-46*

"Sp/Co" (means for applying a wavelength. In which, the wavelengths λ_i "i = 1-8" that can be

located new paths as shown in the figure)

At the time of the invention, it would be obvious to a person of ordinary skill in the art to combine such means for applying a wavelength routing protocol to the data in the transport overhead field to provide end-to-end services, the wavelength protocol locating new paths for communication, as taught by *Martin* with *Oliva,* in order to provide a restoration if a communication link in a communications network has failed. The motivation for doing so would have been to provision an efficient restoration in a SONET system. Therefore, it would have been obvious to combine *Martin* with *Oliva* in the invention as specified in the claim.

d) **In Regarding to Claim 27**: *Oliva* disclosed all aspects of this claim as set forth in claims 15 and 26.

Oliva failed to explicitly disclose an intelligent software system in combination with the wavelength routing protocol determined end-to-end routing automatically.

Martin disclosed such an intelligent software system in combination with the wavelength routing protocol determined end-to-end routing automatically *(see col.5 lines 25-67: Trace byte J1 is used to identify that the correct connection was made between two end points of the path (hence, end-to-end routing); it is a user programmable byte (intelligent software) that respectively transmits a 64-byte fixed length string so that a receiving terminal in a path can verify its continued connection to the intended transmitter WDM (wavelength division multiplexing) λ_1-λ_8 (hence wavelength protocol); and see col.7 lines 39-44: the line AIS and line RDI indications also pass through automatically (hence routing automatically))*.

At the time of the invention, it would be obvious to a person of ordinary skill in the art to combine such an intelligent software system in combination with the wavelength routing protocol determined end-to-end routing automatically, as taught by *Martin* with *Oliva,* in order

to provide a restoration if a communication link in a communications network has failed. The

motivation for doing so would have been to provision an efficient restoration in a SONET

system. Therefore, it would have been obvious to combine *Martin* with *Oliva* in the invention as

specified in the claim.

e) **In Regarding to Claim 28**: *Oliva* further disclosed wherein the wavelength protocol

locates new paths for communication manually *(see col.2 lines 30-31: network topology*

(protocol) is typically manually entered into a record for use by a management system; and see

col.6 lines 31-44: Network element and port identifiers 64, 66, 68 and/or 70 are resident in

network element 42 and/or 44 or ports 52, 54, 56, 58, 60 and 62 when the device is

manufactured, are entered manually through a local interface device at the time of installation

(hence locates new paths manually)).

f) **In Regarding to Claims 8, 9** and **12-14**: These claims are rejected for the same

reasons as Claims 22, 23 and 26-28, respectively because the apparatus in Claims 22, 23 and 26-

28 can be used to practice the method steps of Claims 8, 9 and 12-14, respectively.

g) **In Regarding to Claims 52-54**: These claims are rejected for the same reasons as

Claims 26-28, respectively because the apparatus for transmitting data as recited in Claims 26-28

is the reverse apparatus for receiving data as recited in Claims 52-54, respectively.

h) **In Regarding to Claims 41-43**: These claims are rejected for the same reasons as

Claims 52-54, respectively because the apparatus in Claims 52-54 can be used to practice the

method steps of Claims 41-43, respectively.

i) **In Regarding to Claims 37 and 38**: These claims are rejected for the same reasons as

Claims 8 and 9, respectively because the method for transmitting data as recited in Claims 8 and

9 is the reverse method for receiving data as recited in Claims 37 and 38, respectively.

Response to Remarks

6.   Applicant's arguments filed on 7/26/2004 have been fully considered but they are not

persuasive.

      Claims 1-54 have been respectfully traversed and reconsidered. However, all of these

claims are still rejected as the same old ground of the rejection as described in sections 1-5

above.

Rejection of Claims under 35 U.S.C § 102

      <u>Claims 1, 15, 29, 30 and 44</u>: each contains limitations related to "data in a transport

overhead field" and "the data providing a source identifier and a destination identifier". After

carefully reviewing the claimed subject matters of these claims, Examiner strongly disagrees

with the Applicant that the *Oliva* reference makes no disclosure of data in a transport overhead

field containing <u>both</u> source identifier and a <u>destination identifier</u>. Actually, *Oliva* does disclose

such <u>both</u> source identifier and a <u>destination identifier</u> *(see Oliva: col.10 lines 21-27; and see*

Transport Overhead field in Figs.4, 7, 9 and 10).

      The Applicant argues that *Oliva* does not place destination identifiers in a transport

overhead field. This argument is unreasonable because an overhead field of a data packet is

usually used to store overhead data such as source and destination identifiers. Therefore, the

destination identifiers should be placed in the transport overhead field as usual; unless, for some

designated reasons, destination identifiers are stored in the payload of a packet for a different invention.

Oliva also provides end-to-end services for transmitting overhead data from a source node to a destination node in network elements 22 and 24 *(see col.5 lines 17-32; and see user programmable at both the transmit and receive ends from col.8 line 66-col.9 line 2).*

For the reasons set forth above, the pending claims 1, 2, 4-7, 11, 15, 16, 18-21, 25, 29-31, 33-36, 40, 44, 45, 47-49 and 51 are unpatentable and being still rejected as the same old ground of the rejection.

Rejection of Claims under 35 U.S.C § 103

Applicant argues that for a claim to be rendered invalid under 35 U.S.C. § 103, the subject matters of the claim as a whole would have been to obvious of a person skill in the art at the time the invention was made. However, the references explicitly disclose or suggest all of the claim limitations for combination or motivation relating to such references as described in the sections 3-5 above.

No Motivation to Combine

Applicants argued that the Office Action fails to establish a teaching, suggestion or motivation to combine with the *Martin* or *Hosler* references. Accordingly both *Martin* and *Hosler* disclose communications networks relating to SONET/SDH, especially in a transport overhead field as that of the *Oliva*. Therefore, at the time of the invention was made, it would be obvious to a person of ordinary skill in the art to combine such claim limitations as described in the sections 3-5 above.

No Expectation of Success

Applicants argued that the Office Action does not establish that such a combination of

teachings of the references would meet with success, as required. However, both *Martin* and

Hosler disclose communications networks relating to SONET/SDH. Therefore, an expectation

of success would be made at the time of the invention was made because both *Martin* and *Hosler*

explicitly disclose a communication data in a transport overhead field as that of the *Oliva*.

Martin: In fact, *Martin* discloses a line card as required by **claims 8, 22** and **37** *(see col.4*

line 50 – col.5 line 9). In which, *Martin* discloses that the line overhead which is used to monitor

a line card; therefore, there is at least a line card existed in the invention of *Martin*.

As for **Claims 9, 23** and **38,** *Martin* explicitly discloses a processor *(see Fig.6)* as that of

the Applicant because a processor can be operated in multiple functions such as control a circuit,

setup a protocol or rule for processing communications data, etc,...

Claims 13, 27, 42 and **53**: the Applicant argues that *Martin* (a) does not relate to an

intelligent routing software system, but only to the J1 byte in the SONET standard, and (b)

describe the pass-through nature of *Martin*, rather than an automatic routing system. Examiner

strongly disagrees with the Applicant on this argument because *Martin* explicitly disclosed such

an intelligent software system in combination with the wavelength routing protocol determined

end-to-end routing automatically *(see col.5 lines 25-67; and col.7 lines 39-44)*. In which, a user

programmable byte (intelligent software) that respectively transmits a 64-byte fixed length

string, so that a receiving terminal in a path can verify its continued connection to the intended

transmitter wavelength division multiplexing λ_1-λ_8 (wavelength protocol), and the line AIS and

line RDI indications also pass through automatically.

Hosler: As **Claim 24,** Examiner cited the section of *Hosler* for the claim 24 in a purpose

of an Internet Protocol addresses, and make a combination of *Hosler* with *Oliva* for exchanging

packets between two peer entities via a computer network in the motivation of providing a

higher-level routing protocol *(see Hosler in paragraph [0036]).*

For the reasons set forth above, the pending claims 3, 8-10, 12-14, 17, 22-24, 26-28, 32,

37-39, 41-43, 46, 50 and 52-54 are unpatentable and being still rejected as the same old ground

of the rejection.

7.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time

policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the mailing

date of this final action.

Examiner Information

8.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to **Anthony T Ton** whose telephone number is **571-272-3076.** The

examiner can normally be reached on M-F: 8:30 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, **Ken Vanderpuye** can be reached on **571-272-3078**. The fax phone number for the

organization where this application or proceeding is assigned is **703-872-9306**.

Information regarding the status of an application may be obtained from the Patent Application

Information Retrieval (PAIR) system. Status information for published applications may be

obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private

PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Respectfully submitted,

by: _____
Anthony T. Ton
Patent Examiner

January 4, 2005

PHIRIN SAM
PRIMARY EXAMINER